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Emergency Operations Center Standard Operating Procedures: Are They Needed?

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### Abstract

This descriptive research project examined the need for the Town of Carrboro to create a Standard Operating Procedure (SOP) for its Emergency Operations Center (EOC). The research problem was the Town of Carrboro's Emergency Operations Plan (EOP) did not have an integrated SOP for when and how to open its EOC during major emergencies. The purpose of this research was to identify and develop an SOP for use by the Carrboro Fire-Rescue Department (CFRD) and community leaders to initiate efficient and effective operations of the EOC during incidents that include but are not limited to man-made and natural disasters. This SOP would also include the need for training, scaling down, and the closing of the EOC. It appeared ironic to the author that SOPs are available on the items performed by staff on a daily basis, yet an SOP is not available on one of the most important primary functions that a local government is required to provide to its customers, employees, and residents.

The questions researched were: (a) What is an SOP and does the community actually benefit from having an SOP for its EOC? (b) What are some trigger points other municipalities use to initiate the opening of their EOCs? (c) If an SOP is recommended, what written format will be used to mesh resources and operations with the surrounding communities? (d) What public and private resources are needed for the EOC to be effective at the CFRD? (e) What is the fiscal impact of standardizing the EOC with an SOP?

The creation of an SOP under the current CFRD format was recommended and Type 1 natural disaster events would determine when the EOC should be opened. The fiscal impact would need more research in order to determine the cost effectiveness of the SOP.

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## Introduction

The Carrboro Fire-Rescue Department (CFRD) has over 60 Standard Operating Procedures (SOPs) that provide direction for most daily activities and ensure emergency operations are conducted consistently during fire and emergency medical service (EMS) incidents. In working toward an improved quality assurance program of emergency operations within the CFRD, the Center for Public Safety Excellence, Incorporated (CPSE) encourages all departments to create strict documentation in order to protect lives and property (2009).

The problem was the CFRD Emergency Operations Plan (EOP) does not have an integrated SOP for when and how to open its Emergency Operations Center (EOC) during emergencies resulting from natural and man-made disasters to ensure efficient and effective processes are instituted to protect the lives and properties of its residents. The purpose of this research was to identify and develop an SOP for use by the CFRD and community leaders to initiate efficient and effective operations of the EOC during major incidents and emergencies that include but are not limited to man-made and natural disasters. This would include the need for training, scaling down, and the closing of the EOC. It appears ironic to the author that SOPs are available on the items a department performs daily, yet the town does not have an SOP on one of the most important primary functions that a local government is required to provide to its customers, employees, and residents.

The methodology for this applied research project (ARP) will be descriptive research to answer the following questions: (a) What is an SOP and does the community actually benefit from having an SOP for its EOC? (b) What are some trigger points other municipalities use to initiate the opening of their EOCs? (c) If an SOP is recommended, what written format will be used to mesh resources and operations with the surrounding

communities? (d) What public and private resources are needed for the EOC to be effective at the CFRD? (e) What is the fiscal impact of standardizing the EOC with an SOP?

### Background and Significance

Carrboro is a small town of 155 employees located in Orange County near the center of North Carolina. It is affectionately referred to as the *Paris of the Piedmont* (Martin, 1970) by many residents. Carrboro was incorporated in 1911 and has nine departments within its municipal structure. The largest departments within the town are Police (42 employees), Fire-Rescue (37 employees), and Public Works (35 employees). Other departments include the Economic Development, Human Resources, Management Services, Planning, Recreation and Parks, and the Town Manager's Office.

Being one of the largest departments in the town, CFRD works a three platoon shift schedule with 11 employees on each. The rank structure consists of one captain (shift commander), two lieutenants, three fire drivers, three relief drivers, and two firefighters per shift. On week days, a fire marshal, deputy fire chief, and the fire chief work a normal 40-hour week with the aid of an administrative program assistant.

Recently, the CFRD has been responding to approximately 1,500 calls for service within the town and the South Orange Fire District (SOFD). The Town of Carrboro is about six square miles and has approximately 20,000 residents, which makes it one of the most densely-populated towns in North Carolina. This population density also creates the majority of the calls for service (Carrboro Fire-Rescue Department, 2010). The SOFD is an 18-square-mile fire district that surrounds the town and the CFRD is contracted by Orange County to provide fire protection services as well as medical response to approximately 4,500 residents. Carrboro acts as a bedroom community for UNC Hospitals and the University of North Carolina at Chapel Hill. Located so close to one of the State's largest universities,

Carrboro has a volume of transient students who reside in the 24 large apartment complexes scattered throughout the town.

On an annual basis, North Carolina has several tropical depressions, tropical storms and hurricanes that impact the state and its residents because it lies in Hurricane Alley (National Aeronautic and Space Administration, 2010). These acts of nature typically hit the state of North Carolina because of the natural curvature and the landscape of the coastline protruding into the Atlantic Ocean; some sections jut out as much as 100 miles (North Carolina Map, 2010). However, these storms do not just impact the coast. These major storms can be hundreds of miles across and many of them move inland, bisecting the state and provide strong winds, huge amounts of rain, downed trees, and power lines. Since the mid 1800s, over 250 of these storms have impacted North Carolina (State Climate Office of North Carolina, 2010). During most of the calendar year, Carrboro usually obtains more than the national average in precipitation and during a hurricane season this increases even more during a very short time period (City Data, 2010). Some storms, like Hurricanes Dennis and Floyd, and Tropical storm Ophelia have brought as much as 20 inches of rain over a three to four day period. As with many states, the weather impacts residents in many different ways. Earthquakes, freezing rain, ice, sleet, snow, tornados, and other natural disasters are present in many areas of the world. In addition to tropical storms, Carrboro has experience with snow, sleet, ice, and freezing rain. According to the State Climate Office of North Carolina (City Data, 2010), the average median temperature for Carrboro in the winter is 37 degrees, which increases the danger level for commuters during the winter months by allowing frozen precipitation to thaw during the daytime and refreeze at night. The refreezing water is a very thin layer which blends with the road coloration and is referred to as black ice. In 1989, tornados came in the

night through the Town of Hillsborough, which lies about six miles north of Carrboro, killing several residents and leveling many subdivisions. These types of emergencies tax the local resources very quickly and require advanced planning to ensure all employees know their role within the National Incident Management System (NIMS), which was adopted by the Town of Carrboro in 2006.

This national standard should be instituted regardless of cause, size, or complexity. The use of this standard would form one basis for federal emergency-and disaster-related grant eligibility; the National Incident Management System (Federal Emergency Management Agency, 2004). The incident command system standards contained in NIMS, as the emergency management standard for all Town of Carrboro departments. These standards are directed towards the departments that might be called upon to respond to a technological, natural, or terrorism emergency, regardless of extent or severity. The frequency of these emergencies will require the town to support a continuing level of readiness in which to apply NIMS incident command standards as an integral element of response to technological, natural and terrorism emergencies. The Homeland Security Act of 2002 requires all municipalities to be NIMS compliant under Presidential Directive Number 5, Title V - Emergency Preparedness and Response. All Carrboro Fire-Rescue, Police, and Public Works employees took the mandatory NIMS training required for their rank (Appendix A) prior to and just after the local resolution was adopted.

The research project targets two of the United States Fire Administration's (2005) operational objectives. The first objective is to promote within communities a comprehensive, multi-hazard risk-reduction plan led by the fire service. The EOC is the

foundation of critical infrastructure during major emergencies for towns, counties and states as the basis for response and mitigation actions. The second operational objective addressed by this project is to reduce the loss of life by responding appropriately in a timely manner to emerging issues. If the need for an SOP exists, the front line departments that provides core services of protecting the public would be more prepared at all times which may increase their efficiency. A department that is more efficient may have the opportunity to reach more citizens in need in a timely manner due to a good plan of action.

### Literature Review

The initial basis for conducting this research was that the Town of Carrboro does not have an SOP to direct staff when to open the EOC during natural and manmade disasters, large fires, acts of terrorism, and major political events. The primary volume of research was conducted at the National Emergency Training Center's (NETC) Learning Resource Center (LRC). In addition, research was also conducted on-line by looking for valid topics on the Internet and reviewing books and manuals at the CFRD's in-house library. Legitimate information was discovered in each of these mediums for most of the research questions.

#### What are Standard Operating Procedures (SOPs)?

SOPs are formal written guidelines or instructions for incident response, according to the Department of Homeland Security (DHS) (2004). SOPs typically contain both operational and technical components that allow multiple disciplines of emergency responders to act in a trained and coordinated effort in the event of an emergency (Department of Homeland Security, 2004). These SOPs can also be shared



with outside agencies to ensure all automatic-aid and mutual-aid departments know and understand what the primary department is going to do and how they are going to do it. Automatic-aid is assistance that is dispatched automatically by a written contractual agreement between two communities or fire districts (Federal Emergency Management Agency, 2004). Mutual-aid is a written agreement where one jurisdiction can provide resources, facilities, services, and other required support to another jurisdiction during an incident (Federal Emergency Management Agency, 2004). This can allow outside departments to be more efficient because they have the ability to know what steps and procedures the primary department should have already performed. Since no two departments are identical, slight to dramatic variations are found so that the SOP can be specific to a department's capabilities and resources. The National Fire Protection Association (NFPA) states that an SOP is "an organizational directive that establishes a standard course of action" (Federal Emergency Management Agency, 1999).

The fire service prides itself on leaving the station in a quick manner and getting to the emergency scene to help those in distress. According to NFPA 1710 (2004) *Standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments*, a career fire department shall be able to leave the station (turnout time) in one minute or less and the first arriving engine should be on-scene within four minutes (National Fire Protection Association, 2004). These actions are achieved through knowledge and training. Personnel must train on donning personal protective equipment (PPE), street locations and the most efficient and safest way to get to an incident. Proper radio procedures along with numerous deployment operations depending on the nature of the

call once arriving on scene also must be considered. Quick and effective response by emergency responders is the keystone to helping the public and it is the author's feeling of why most personnel joined the fire service.

The format of SOPs should also be consistent. It is important to have all of the procedures documented but it is also just as important to have them listed in the same order so that the users know where to look for the answers they might need. According to *The Writing Guide for Standard Operating Procedures* some key questions that should be asked are (Department of Homeland Security, 2004):

1. To what capability does this SOP apply?
2. What is the recognized need?
3. Are any established agreements already in place among emergency responders?
4. Who will be using the SOP?
5. Why is this concern being addressed?

The purpose of a well written SOP should be brief and must ensure that the principle objective is going to be met. This should also include who will use the SOP, who has the authority to enforce the SOP, and who has the responsibility to follow the SOP (Department of Homeland Security, 2004). In essence who will actually be using the SOP.? The scope of the SOP will cover who and how agencies will be impacted by the implementation of the SOP.

If few decisions and less than ten steps are to be initiated by the user, then a ten Simple Step SOP format is recommended. Once more than ten steps must occur, a hierarchical or graphical SOP is recommended. When numerous decisions must be made

before committing on how to proceed, a flowchart style SOP is recommended. A step-by-step list of how to follow the directions of the SOP should be provided either in a text, graphical, or text and graphical format (Department of Homeland Security, 2004). In addition, a reference list of the standards that helped the writer create the SOP should be included so that persons needing to know more information have a checklist of documents to review. Lastly, there is a need to build in a training guideline to verify that personnel review and absorb the critical tasks that are built into the SOP. This ensures that all of the objectives from the implementation of the SOP are met (Department of Homeland Security, 2004).

#### Is a Standard Operating Procedure (SOP) necessary?

With the critical tasks incorporated into an SOP in mind, most departments have an SOP to govern how fast they must don their PPE and how quick they must leave the station, just to name a few listed from NFPA 1710 (National Fire Protection Association, 2004). They should also have SOPs on proper radio etiquette based on the NIMS principles along with an SOP on what to do after they arrive on the scene of an incident and determine what the emergency actually is compared to what how it was dispatched (Commission on Fire Accreditation International, 2009).

The *Fire Protection Handbook*, 19<sup>th</sup> ed., recommends that every fire department should have a set of rules and regulations (Paulsgrove, 2003). These standard operating procedures dictate what is expected of the responders and what the consequences might be if the procedures are not followed accordingly. A clear understanding of these procedures is essential during emergencies for personnel safety and consistency (p.7-13).

The Town of Carrboro Emergency Operations Plan was created in 1997 by Fire Captain Walter Mills (W. Mills, personal communication, October 18, 2010). In an effort to keep this document current, it is updated annually by Captain Mills who still works for CFRD as a Shift Commander. This Emergency Operations Plan (EOP) provides many points of guidance for departments in the town. It provides the incident command structure, current resource lists, the North Carolina Emergency Management Act, and the Town of Carrboro Emergency Ordinance just to name a few (Town of Carrboro, 2010). However, the item that is lacking is an official SOP providing guidance as to when the EOC should be opened and who has the authority to make the opening official.

The Commission on Fire Accreditation International's (CFAI) Fire and Emergency Service Self-Assessment Manual (FESSAM) recommends having written SOPs for each type of emergency that could impact the community. Specifically Criterion 5H – Domestic Preparedness Planning and Response, focuses on the necessity to have provisions and plans for an EOC (Commission on Fire Accreditation International, 2009).

The primary document originally studied was NFPA 1600 because of its accessibility to many fire agencies. The 2007 edition is called the Standard on Disaster/Emergency Management and Business Continuity Programs. The NFPA 1600 standard creates the parameters for a common set of criteria for disaster/emergency management and business continuity programs (National Fire Protection Association, 2007). The goal of this standard is to assess current programs or set the criteria if creating, implementing, and maintaining a new program with relation to emergency management and disaster preparedness along with business continuity planning.

Operational procedures were discussed in section 5.11 of NFPA 1600 (2007).

The standard stated that procedures shall be developed and implemented for response and recovery operations. The health and safety of emergency responders and the public must be instituted during incident stabilization along with property and environmental conservation. The health and safety aspect ties directly into NFPA 1500, which is the occupational safety and health program standard for fire departments (National Fire Protection Association, 2007). In chapter four of NFPA 1500, referred to as Fire Department Administration, the standard emphasizes the need for written policies and standard operating procedures that document the organizational structure, membership, roles and responsibilities, expected functions, and training requirements (National Fire Protection Association, 2007). This same language is echoed by Ronnie Coleman in *The Fire Chief's Handbook*, 6<sup>th</sup> ed. under the section called Fire Department Organization (p.545). Here it is stated that departmental performance and individual expectations are set by enforced written standard operating procedures.

The EOC is the hub of any major incident. NFPA 1561 (2008) and NFPA 1600 (2007) both recognize the need for an incident management system to be in place for all emergencies, because the incident management system should be the foundation that all responding agencies work and communicate. A Capability Assessment for Readiness (CAR) should also be developed and tested annually, according to the *Emergency Management Handbook*, 1<sup>st</sup> ed. (International Fire Service Training Association, 2007). As one of the characteristics of a model EOC procedure, a CAR has many components that may include the following: develop and maintain an EOC operations manual, review and update staff procedures and SOPs, define activation and deactivation of EOC,

establish alert notification procedures, define staff duties and accessibilities, establish information handling procedures, and integrate federal, state, and local entities into the EOC (p. 348).

The benefit of an EOC as stated in NFPA 1561 is that elected and appointed leaders of the community can assemble at a facility equipped to carry out the functions of government during an emergency (National Fire Protection Association, 2008). The goal is to not let the EOC become involved in the emergency and to let the incident commander or unified command handle the situation and request supplies, people, and equipment as needed through the EOC (National Fire Protection Association, 2008). NFPA 1561 also provides guidance on how to develop written standards in order to implement the incident management system. Based on the information obtained at this point, the NFPA standards along with *The Fire Chief's Handbook* and the *Emergency Management Handbook* all provide the groundwork that state a written SOP appears to be necessary to standardize the work process and create a safe, effective, and efficient work environment.

While at the NETC visiting the publications center – Building I, a document was obtained called *Developing Effective Standard Operating Procedures for Fire & EMS Departments*. This manual was produced by the Federal Emergency Management Agency in 1999. A recommendation within this manual suggests that all SOPs be called Standard Operating Guidelines (SOG) because the word “procedure” indicates a rigid way of looking at problems with only one way to mitigate them. The term guideline indicates flexibility by allowing responders to use discretion and apply a common sense approach to the incident. It was determined that either term can be utilized based on local

legal counsel's advice. Due to varying on-scene conditions, an SOP or SOG should never force an officer to make a poor decision and should allow for good judgment and discretion by emergency responders on all calls for service (CFS).

The student manual for the Executive Analysis of Fire Service Operations in Emergency Management (EAFSOEM) states that an SOP should be created as part of the planning process so that actions and procedures are properly documented (Federal Emergency Management Agency, 2009). One of the most important items when creating the EOC SOP is identifying who can open the EOC and under what conditions should it be activated. The student manual also recommends listing all of the persons who have the same authority to request opening the EOC and a list of who can approve those requests. In addition, SOPs should also cover various actions during different phases of the emergency. These include mitigation, increased readiness, warning, as well as response and recovery phases (p. SM 5-16).

Another document reviewed later in the literature review process was the Standards of Cover (SOC) published by CFAI (Commission on Fire Accreditation International, 2008). The SOC recommends developing standards that describe how an agency will allocate and deploy its resources to maximize response effectiveness throughout the area served (p. 11). The frequency and severity of the most common types of CFS must be reviewed in a historical fashion. This allows for each community to determine its acceptable level of risk so that both the political and operational objectives are managed (Federal Emergency Management Agency, 2005). According to Green and Rainwater (2009), "when a catastrophic natural disaster happens, responders

must be ready to enter a world of chaos and urgency”. All fire departments must be prepared to the best of their ability to handle their community’s risk.

If a community lies in an area that is prone to common disaster occurrences, more specific efforts of planning, training, and preparing must be performed (Carter and Rausch, 2007).

The National Institute for Occupational Safety and Health (NIOSH) consistently makes recommendations for the creation of SOPs when disasters and terrorism emergencies occur (2004). *In Protecting Emergency Responders Volume 3*, NIOSH states “that because major disasters are rare and the safety risks that responders face may be unprecedented, response organizations get little to no practice managing them. It is important to build safety management practices that can meet the needs of disasters into organizations’ SOPs whenever possible” (p. 6).

Tactical objectives during emergencies should require the use of SOPs for consistency and safety, however SOPs are not just for emergencies and can certainly be applied to routine daily assignments like pre-incident surveys (Carter and Rausch, 2007). Emergency preparation is what the fire service specializes in as the most important functions it can provide (Bennett and Forsman, 2003). With proper planning, training, and anticipation by performing risk assessment, fire departments can help citizens deal with emergencies and disasters that occur from carelessness or by nature.

The State of North Carolina General Statutes (NCGS) place the responsibility of providing emergency management functions upon the county per NCGS 166A-7. All emergency management efforts within the county will be coordinated by the county, including activities of the municipalities within the county. All incorporated



municipalities are authorized to establish and maintain emergency management agencies subject to coordination by the county (General Assembly of North Carolina, 2010). Each county who establishes an emergency management agency pursuant to State standards may be eligible to receive State and federal financial assistance, including funding for emergency management planning and preparedness.

The EOP for the Town of Carrboro states that if Orange County Emergency Services (OCES) opens its EOC, then the Town of Carrboro EOC converts to an area command known as the Carrboro Operations Center. All disasters begin and end at the local level and the governing agencies within the county must coordinate resources and response efforts (Vogt et al, 2008). When a county or a town becomes overwhelmed during an emergency, they have the authority to enact intergovernmental cooperation and to utilize interlocal agreements per Article 20, Chapter 160A and mutual aid agreements under NCGS 166A-10(b).

#### What is an Emergency Operations Center (EOC)?

The EOC is a location from which centralized management of an emergency response is performed. The EOC provides a central location where strategic management of an incident is accomplished by providing support functions to first responder forces out in the field (Bullock, J., Haddow, G., Coppola, D., 2008).

These support functions of the EOC include but are not limited to: briefing the media with press releases, collecting and collating raw data, developing strategic policies and procedures, issuance of local declarations, maintaining liaison with local and state governments, maintaining strategic status and resource boards, receiving and disseminating warning information, acquiring resources, and preparing and providing

finished intelligence reports (Federal Emergency Management Agency, 1995). These functions are carried out by five major functional areas known as: Command and General Staff, Operations, Planning, Logistics, and Finance/Administration. Each of these functional areas has an almost unlimited number of support positions that can be created based on the size of the incident (Federal Emergency Management Agency, 1995). This organizational setup is the basis of the NIMS concept as a comprehensive approach for all jurisdictions on a national level (Federal Emergency Management Agency, 2004).

Carrboro Fire-Rescue uses the term Standard Operating Guideline for most of its management policies for consistent decision-making processes (Appendix E). These management policies are written in such a fashion to recognize that no CFS scene is the same and that no situation or officer in charge (OIC) of a scene are identical. With these parameters in mind, the CFRD authors of some 60 current SOGs recognize and trust that with quality training, the intent of each document will be carried out with good quality by each employee (Carrboro Fire-Rescue Department, 2010).

The author has been unsuccessful in finding any literature that directly shows the fiscal impact of having an SOP for the EOC.

### Procedures

The purpose of the research was to identify the need for an EOC SOP and if it is needed, what format should that SOP be created in for the Town of Carrboro. The descriptive research conducted was initiated at the Learning Research Center located on the campus of the NETC as the beginning of the literature review. Published material was reviewed through a computer search of the card catalog database as it related to standard operating procedures, emergency operation centers, hazard risk analysis,

damage assessment, emergency management, disaster planning, and various National Fire Protection Association Standards. The Scholar Research Option was also utilized while at the NETC via the Google website.

The initial research question was to define what an SOP is and if one is needed for the Town of Carrboro to benefit the operation of its EOC. Research was conducted in order to find current information that created validity to why it is critical while developing an SOP during the rapid changes that occur in the technology world of today. According to the *Introduction to Emergency Management*, “In today’s world of 24-hour television, radio news, and the internet, the demand for information is never ending, especially in an emergency response situation” (Bullock, J., Haddow, G., Coppola, D., 2008). Smart phones have recently raised this bar even higher by having access to more on-scene information. An SOP must be valid and reflect the basic operations that a specific department can actually perform in a timely manner. The Emergency Management Institute (EMI) supports this and recommends using the SOP as a tool for training through systematic implementation of procedures (Federal Emergency Management Agency, 1995).

The second phase of the research was to survey numerous departments in order to find out if they have an EOC SOP and what trigger points they use to activate their EOC. The survey was broadcast using an on-line application called Survey Monkey (Appendix B). The survey was sent to members of the National Society of Executive Fire Officers, the North Carolina Association of Fire Chiefs, classmates from random National Fire Academy classes, and emergency managers within Orange County, North Carolina.

The survey was intended to be a specific instrument to help identify what other towns and counties are doing locally and abroad to provide consistency and guidance to the Town of Carrboro with regards to the operation of its EOC. Survey question one was asking for contact information in order to obtain copies of any SOPs for future reference. Survey questions two, three, four, five, six, eight, and nine were targeted toward answering research questions two and four. Survey questions seven and ten inquired about mass notification systems and current risk performance measures that communities were using. A total of 127 responses from 124 departments across the United States and one response from Australia were received for a grand total of 128 responses. Personnel who received the survey were instructed via e-mail (Appendix B) to fill out the survey and to send copies of any EOC SOPs that they were willing to share.

Personal communication was utilized with Shift Commander Walter Mills in an effort to try and understand how the current EOP was created and why an SOP had not been developed (W. Mills, personal communication, October 18, 2010). In addition, how had the Town of Carrboro been able to operate under high stress situations so often without an SOP to be used as guidance? Current sections of the EOP along with other SOPs that the CFRD operates under were reviewed and evaluated to gather more information about response criteria and how the department operates once the EOC had been activated.

No sources were found regarding the fiscal impact of standardizing the EOC by creating an SOP. The Town of Carrboro already has an EOC and the equipment for its operation, so there are no capital expenditures to be placed to physically create the site. Recently the town built a new fire station and created a redundant EOC in the training

room of this new station so that a back-up site was present (W. Mills, personal communication, October 18, 2010).

There could be some cost savings or cost anticipation created by an EOC SOP. With cost savings in mind, there could be minimal duplication of effort. One point of contact could be used in order to centralize all requests during the initial setup time. All personnel would have a clear understanding of what supplies and equipment would be needed and where it could be acquired during initial openings of the EOC each time, which could help with cost anticipation. Most of the staff would already be on-duty, so no savings would occur during the period of time while setting up the EOC. The personnel who are assigned under the EOP to participate in the EOC are primarily exempt employees with regards to payroll, so there would very little if any savings found during the period of time while operating the EOC.

#### Limitations

Several factors limited the efforts of the research for this applied research project. The first is the number of departments within North Carolina that responded. A total of 47 responses were obtained from within the state provided information to populate the survey (Appendix C) project. This lends itself to being somewhat biased to a local level with almost 37% of the survey coming from a fairly localized area.

Another limiting factor is that several responses received for the survey (Appendix C) came from the same departments. Additionally, the next limiting factor was the concentration of responses that come from areas that may have similar weather events like Florida. Florida had the next highest number of responses for a total of 17 departments completed the ten question survey (Appendix C).

The last limiting factor is the assumption that the surveys (Appendix C) were filled out as completely as possible. It was noticed that many questions within the survey (Appendix D) were skipped by some of the respondents. The author did not receive any copies of SOPs as requested from any of the departments surveyed (Appendix B). The 5<sup>th</sup> edition of the American Psychological Associations' Publication Manual was used extensively in finalizing this applied research project.

### Results

The purpose of this research project was to determine if an SOP for the Town of Carrboro's EOC was needed. In addition, a survey was implemented to find out what trigger points were used to open the EOC by other jurisdictions, what format should be used, what private and public resources were needed; and would there be any cost savings by having an SOP?

The Department of Homeland Security (2004) states that, "SOPs are formal written guidelines or instructions for incident response". SOPs typically contain both operational and technical components that allow multiple disciplines of emergency responders to act in a trained and coordinated effort which benefits the community in the event of an emergency (Department of Homeland Security, 2004). These SOPs can also be shared with outside agencies to ensure all automatic aid and mutual aid departments respond accordingly with the resources needed to perform the correct job. SOPs were highly recommended by EMI, DHS, Federal Emergency Management Agency (FEMA), NFPA, along with many other agencies like NIOSH.

The author finds many interesting results from the research and the survey performed based on common traits with other departments across the United States. It is

also interesting to note that most have SOPs for their EOC operations. Out of the 125 department that responded to the survey (Appendix D), 47 of the departments were from North Carolina, 17 were from Florida; and Colorado, Ohio, and Washington states each had six respondents. The remaining 43 respondents were from various states with the highest numbers being from Illinois, Arizona, California, and Massachusetts. There was one participant from Melbourne, Australia.

Survey question one was a request for contact information only. Question two from the survey revealed, in most cases, that most jurisdictions were similar in size or larger than the Town of Carrboro with regard to population. The largest response came from the jurisdictions that were closest in size with a count of 33 (25.8%) with a population of 10,000 – 25,000. Only 13% of the jurisdictions that responded were smaller in population.

The third survey question inquired to whether or not the jurisdiction had ever experienced a major natural disaster. A disaster was defined as being an occurrence or imminent threat of widespread or severe damage, injury, or loss of life or property, resulting from any natural or man-made accidental, military or paramilitary cause (General Assembly of North Carolina, 2010). Out of the 128 responses returned, 87 (68.5%) stated that they had experienced a natural disaster. The author was surprised to see how many jurisdictions have apparently not been affected by various types of severe weather at 40 (31.5%) departments. One department skipped this survey question.

The fourth survey question asked if a formal plan for their jurisdiction was in place to handle disasters like an All Hazards or Emergency Disaster Plan. It was reported that 113 (88.3%) of the jurisdictions did have an emergency plan of some type. One

department did not have a plan and 14 (10.9%) respondents stated that the plan was handled by another agency.

Question five from the survey revealed that just over half of the agencies actually have a written SOP that provides guidance as to when to open the EOC. The results were 80 (63.5%) departments stated that they had a formal written plan. Four (3.2%) departments responded that they had a written plan but it wasn't essential. Twenty four (19%) answered that the plan was very vague and generic, while 18 (14.3%) stated that they didn't have a plan at all and wished they did have a written formal policy to provide direction to their members.

The sixth survey question targeted research question two specifically. It asked what parameters or trigger points of emergent conditions are applied to open the EOC. The highest response count was 88 (69.3%) for Type 1 incidents, such as a category 3 hurricane that was creating significant widespread damage as well as damage to local infrastructure. This emergency could also initiate requests for state and potentially federal resources. Type 2 incidents came in with the second highest response count of 81 (63.8%). Departments could answer question six multiple times, for example some of the departments checked Type 1 and Type 2 incidents or Type 2 incidents and mass casualty incidents, so the total number of contacts was 343 but the actual number of answers for this question was 127. One department skipped answering this question completely.

Question seven inquired about the agency having access to a type of mass notification system to inform the public at large by telephone of a major emergency, as well as provide them instructions on what actions to take. There are numerous types of similar systems used and 119 (92.9%) stated that they used some form of a system to



notify the public. Twenty-eight (23.5%) of the 119 respondents answered that they specifically used CodeRed, which seems to be very popular in the Southeast. CodeRed is an extremely fast telephone communications service available for mass notifications. Seventy-two (60.5%) responded that they use a system but the author did not have the specific name listed. Nine respondents skipped this question.

The eighth survey question looked for departmental interaction with the public and does the department provide reaction and evacuation training that works to compliment the All Hazards or Emergency Disaster Plan. Almost half (46.5%) of the respondents answered that they did provide some form of disaster training with the public. Thirty-nine (30.7%) of the departments stated that they did not provide any training on disaster reaction and evacuation. This appears to almost mirror the answer to survey question three on the 40 (31.5%) jurisdictions who had not experienced a natural disaster. Twenty-nine (22.8%) of the departments responded that another agency provides the training.

Survey question nine specifically addressed research question four to determine what public and private resources would be needed for an EOC to operate well during a major incident. An overwhelming majority (98.4%) expressed an urgent need for mutual-aid and another large portion (82%) responded to the need for automatic-aid. The author found this very interesting because only 12 (9.4%) departments stated that they had access to the Mutual Aid Box Alarm System (MABAS). This is probably due to MABAS is used primarily in the Illinois and Wisconsin areas of the United States but it does show a need for this type of movement to be more widespread. MABAS is a statewide, nondiscriminatory mutual-aid response system for fire, EMS, and specialized

rescue operations utilized in the mid-west. An average of the highest 12 specific public and private resources came in at 90.83% from the 128 respondents. These resources were specific in nature to capture public works, school systems, and transportation providers who may typically be used during major events. The specific public and private resources included but were not limited to: fire engines, ladder trucks, back hoes, bulldozers, police cars, ambulances, buses, dump trucks, forestry service, schools, shelters, and EOCs. Snow plows were the least resource identified with only 77 (60.2%) of the departments identifying them as a need during a major incident.

Question ten asked, what are your current community risk performance measures and standards that are used when developing an All Hazards / Emergency Disaster plan for your community. The largest number of departments identified with NFPA 1710 (2004) *Standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments*. A total of 55 (44.7%) departments indicated that this standard was the most important with regards to utilization of resource deployment, number of personnel and response times. The next closest was NFPA 1600 (2007), *Standard on disaster/emergency management and business continuity programs*. Thirty-seven (34.1%) departments indicated that they used this standard when developing an All Hazards / Emergency Disaster Plan. A comprehensive list of 15 additional programs was provided for departments to choose from when preparing their All Hazards / Emergency Disaster Plan. An average of 17.6% of the 15 other programs were utilized by the 123 departments in varying degrees. Five departments skipped this survey question. Knowing that every community is not the same, each must chose what the

acceptable level of risk is going to be, by working closely with elected officials, city and county management, and emergency service providers each jurisdiction must decide what it can afford.

Research question three addressed the specific format of the SOPs that may be recommended in order to mesh resources and operations with surrounding communities. In reviewing the answers from the departments that responded to the survey, the author identified several agencies that were in the local area of Carrboro. These included the City of Durham, the Town of Hillsborough, Orange County Emergency Services, and the community of Bethesda in Durham County. Since none of the respondents provided copies of their SOPs as requested (Appendix B), it is very difficult to know what format would work best. It could be that the format currently used by the CFRD (Appendix E) could work well as long as all of the proper components are included. Additional research must be conducted, if the Town of Carrboro decides to create its own EOC SOP by obtaining copies of their SOPs from each of the above listed agencies.

The fiscal impact of standardizing the operations of the EOC with an SOP is hard to detect. The author was not successful in locating any sources that actually tie an SOP to the fiscal impact of standardizing the EOC. The on-duty staff at CFRD sets up the EOC when major events approach, so no savings would be found during this time frame.

### Discussion

The author finds the research shows that an SOP is definitely needed for the Town of Carrboro's EOC operations (Commission on Fire Accreditation International, 2009). EMI, FEMA, NFPA, NIOSH and many other agencies recommend that the best way to ensure consistency is to have an SOP so that all members of an agency are performing the

same job in a very similar way, singing off of the same sheet of music. By creating consistency, multiple departments would probably work in a more synergistic manner making for a more efficient operation (Federal Emergency Management Agency, 1995). It also showed that approximately 35% of the jurisdictions needed an SOP or their current guidelines need to be updated to provide better guidance because it is too vague. However, a marginal plan is expected to be better than no plan at all.

Depending on where you live within the world might dictate what type of exposure a person, department, or jurisdiction might experience with natural and man-made disasters. With this in mind, a Type 1 incident was the most common trigger point used by the jurisdictions surveyed and a Type 2 incident was the second most common. It could be argued that research question two was not answered well enough to pinpoint an exact reason for opening the EOC but it does give some guidance as to what other agencies utilize on a national level.

The format in which SOPs are written varies tremendously but should create a series of logical steps for members to follow (Department of Homeland Security, 2004). There is no one correct format for SOPs as they will vary based on administrative needs and technical objectives (Federal Emergency Management Agency, 1999). The key to a good quality SOP is to ensure ease and efficiency in its use and be specific to eliminate ambiguity (DeLorie, 2002).

The formatting is very important for a couple of different reasons. The first reason is that the CFRD currently uses a specific template for its SOPs (Appendix E) as do most departments (Carrboro Fire-Rescue Department, 2010, December). Any new SOPs should be formatted in a similar manner to ensure all employees know the layout

and they could scan through the document for answers to specific questions. The second is that when an SOP is clearly laid out and members have had an opportunity to review and train on it, limited negative implications upon the organization are expected to occur.

### Recommendations

The purpose of this research was to identify the need for the Town of Carrboro to have an SOP for its EOC. After reviewing the survey information, numerous FEMA documents, and several NFPA standards, the need for an SOP is clearly a must for the Town of Carrboro. The first recommendation for the Town of Carrboro is to start the process of creating an SOP and format the SOP in the same way that its other SOPs are currently using Appendix E as the primary guide with specific language and procedures. A second recommendation is to establish a committee to assist in developing this SOP because it will impact the operations of several other town departments as well as Orange County Emergency Services. Other departments from the Town of Carrboro that will be invited to participate with the SOP committee may include but not limited to: Public Works, Police, Parks and Recreation, Management Services, along with the Manager's office. Input from members at all ranks and positions from each of the departments will be requested to ensure that the EOC SOP created has reasonably considered each department's roles and capabilities as well as incorporated their current operations and staffing.

The next recommendation would be to create training evolutions once the EOC SOP is complete. These training evolutions would begin as table top exercises and progress to functional exercises building upon each other starting with small emergencies and how they may grow over a period of time. After several training sessions the evolutions would begin and move all the way through an emergency including the demobilization phase of the EOC.

Once all of the potential problems appear to have been worked out of the training program, a comprehensive exercise program plan would be developed as the fourth recommendation, so that all components are documented for future consistency by staff members of each department. This comprehensive exercise program plan would include what is expected to be accomplished during each training session, how to conduct the training evolution, an evaluation and critique of each training evolution, and finally a training exercise follow-up with each department member involved to obtain critical points of information to hopefully fine tune the training evolutions for future events.

Once an EOC SOP is finalized, tested, and evaluated the next recommendation would be to test how well the EOC SOP works with other local jurisdictions. This could be done by having a larger functional exercise which would test the continuity of multiple local governments and Orange County. Resource Management, communications, emergency public address systems, and the coordination of each would be tested during this functional exercise.

Finally, it is also recommended that a cost-benefit analysis be conducted to determine if there are any cost savings to the Town of Carrboro by having the EOC SOP. The CFRD currently has staffing data and payroll records available through Firehouse software to show operational costs prior to having an EOC SOP. Once the comprehensive exercise program plan is complete, current records of staffing and payroll could be compared to previous activations of the EOC to determine any cost savings.

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## Appendix A

National Incident Management System Compliance Guidelines  
March 2006

TOC = Town of Carrboro

Class	Required Attendance
NIMS 100 Introduction to ICS Required by Sept. 30, 2006	All Police Dept members All Fire Dept members All Public Works Dept members Town Clerk Town PIO All TOC Supervisors/Managers All TOC Department Directors All TOC Department Directorates Town Manger
NIMS 200 Basic ICS Required by Sept. 30, 2006	All Police Dept members All Fire Dept members All Public Works Dept members Town Clerk Town PIO All TOC Supervisors/Managers All TOC Department Directors All TOC Department Directorates Town Manger
NIMS 300 Intermediate ICS Required by Sept 2007 This is a 40 hour course.	Police Supervisors Fire Supervisors Public Works Supervisors Department Directors Department Directorates Town Manager
NIMS 400 Advanced ICS Required by Sept. 2007 This is a 40 hour course.	Police Supervisors Fire Supervisors Public Works Supervisors Department Directors Department Directorates Town Manager
NIMS 700 Intro to NIMS NIMS 800 Intro to National Response Plan	All Police Dept members All Fire Dept members All Public Works Dept members Town Clerk Town PIO All TOC Supervisors/Managers All TOC Department Directors All TOC Department Directorates Town Manger

Appendix B  
Survey Instructions

Dear Fire Service Professional,

EFOP student, Fire Chief Travis Crabtree, is looking for our membership to assist with an ARP survey-

As part of the EFOP program, I am conducting research on Standard Operating Procedures (SOP) with respect to the Emergency Operations Center (EOC). I am focusing on providing guidance to when the EOC should be opened and what trigger points are targeted. I am asking that you take a few minutes to fill out this short survey. Even if your department may not have direct EOC responsibility, please do not delete this e-mail and I ask you continue with the survey. Please click on or copy link below-

I appreciate your time and thank you. If you have an SOP on your operations, please send it to me e-mail address below.

<http://www.surveymonkey.com/s/58KBNXZ>

Have a great Thanksgiving weekend!!

Travis L. Crabtree, Fire-Rescue Chief, CFO

Town of Carrboro

301 West Main Street

Carrboro, NC 27510

(919) 918-7349 office

(919) 932-5359 fax

(919) 883-8342 cell

[tcrabtree@townofcarrboro.org](mailto:tcrabtree@townofcarrboro.org)

## Appendix C

### Carrboro's Emergency Operations Center Standard Operation Procedures External

#### Survey

1. Contact Info: Agency, name of person filling out survey, address, contact #, e-mail

2. What is the population of the area that you protect?

0-10,000

10,000 – 25,000

25,000 – 50,000

50,000 – 100,000

100,000 – 250,000

250,000 +

3. Have you ever experienced a major natural disaster?

4. Is there a plan in place for your jurisdiction to address a major disaster like an All

Hazards / Emergency Disaster Plan?

Yes,

No,

Not sure

It is handled by another agency

5. Does your agency have a written standard operating procedure (SOP) for when to open the emergency operations center (EOC) or is it assumed that a major incident would be handled with the same approach, for example, as a structure fire?

Yes, it is a formal written plan;

Yes, but it is not essential to have a written plan;

Yes, but the plan is vague and generic;

No, but I wish we had one

6. What parameters or trigger points of emergent conditions are applied to open your EOC?

Type 4 incident like a multiple vehicle crash with several patients, no outside resources would be needed and would be able to be handled by day-to-day operations by responders

Type 3 incident such as the need for a Hazardous Materials Regional Response Team requiring the coordination of several local resources outside of the scope of their normal daily activities, limited to a small geographical area impacting a limited number of citizens

Type 2 incident such as an overnight snow storm that requires major coordination from local and state resources over several days

Type 1 incident such as a Category 3 Hurricane (natural disaster), creating significant widespread damage, infrastructure damage and significant requests for state and federal resources

Interstate closing

Train derailment

MCI

Other (please describe)

7. Does your agency have a type of a mass notification system in order to inform/advise the public of a possible public emergency?

Code Red

Connect CTY

Dialogics

Other

8. Does your agency assist in training the public on how to react/evacuate to a major disaster, like in question #4?

Yes

No

Another agency performs the training (who) \_\_\_\_\_

9. What public and private resources do you have access to use in case of a major incident?

Check all that apply:

Mutual Aid

Automatic Aid

MABAS – Mutual Aid Box Alarm System

Fire Engines

Ladder Trucks

Back Hoes

Bull Dozers

Police Cars

Ambulances

Buses

Dump Trucks

Forestry Service

Schools

Shelters

Emergency Operations Center

Snow Plows

Other

10. What are your current community risk performance measures and standards that are used when developing the All Hazards / Emergency Disaster Plan for your community?

(Check all that apply)

NFPA 1710 - Standard for the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by career fire departments

RHAVE (Risk, Hazard, and Valuation Evaluation)

HAZUS-MH (FEMA's Methodology for Estimating Potential Losses from Disasters)

Stafford Act Program

NFPA 1600 – Standard on Disaster/Emergency Management and Business Continuity

NEMA – National emergency Management Association

EMPG – Emergency Management Performance Grant program

CAR – Capability Assessment Readiness program

NEMB-CAP – National Emergency Management Baseline Capacity Assessment Program

EMAP – Emergency Management Accreditation Program

IEMC – Integrated Emergency Management Course

Homeland Security Preparedness Technical Assistance Program



Homeland Security Exercise and Evaluation Program

National Exercise Program

Models, Simulations, and Games Program

BCP - Business Continuity Planning

SNAP – Special Needs Awareness Program

Other

## Appendix D

## Results from External Survey

1. Contact Info: Agency, name of person filling out survey, address, contact #, e-mail

2. What is the population of the area that you protect?

0-10,000	13.3%	17
10,000 – 25,000	25.8%	33
25,000 – 50,000	18.8%	24
50,000 – 100,000	16.4%	21
100,000 – 250,000	11.7%	15
250,000 +	14.8%	<u>19</u>
Total answers		128

3. Have you ever experienced a major natural disaster?

Yes	68.5%	87
No	31.5%	40
Skipped question		<u>1</u>
Total answers		128

4. Is there a plan in place for your jurisdiction to address a major disaster like an All

Hazards / Emergency Disaster Plan?

Yes	88.3%	113
No	0.8%	1
Not sure	0.0%	0
Handled by another agency	10.9%	<u>14</u>
Total answers		128

5. Does your agency have a written standard operating procedure (SOP) for when to open the emergency operations center (EOC) or is it assumed that a major incident would be handled with the same approach, for example, as a structure fire?

Yes, it is a formal written plan	63.5%	80
Yes, but it is not essential to have a written plan	3.2%	4
Yes, but the plan is vague and generic	19.0%	24
No, but I wish we had one	14.3%	18
Skipped question		<u>2</u>
Total answers		128

6. What parameters or trigger points of emergent conditions are applied to open your EOC?

Type 4 incident like a multiple vehicle crash with several patients, no outside resources would be needed and would be able to be handled by day-to-day operations by

responders	6.3%	8
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Type 3 incident such as the need for a Hazardous Materials Regional Response Team requiring the coordination of several local resources outside of the scope of their normal daily activities, limited to a small geographical area impacting a limited number of

citizens	35.4%	45
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Type 2 incident such as an overnight snow storm that requires major coordination from local and state resources over several days

	63.8%	81
--	-------	----

Type 1 incident such as a Category 3 Hurricane (natural disaster), creating significant widespread damage, infrastructure damage and significant requests for state and federal resources

	69.3%	88
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Interstate closing	8.7%	11
Train derailment	37.8%	48
Mass Casualty Incident	23.6%	30
Other (please describe)	25.2%	32
Skipped Question		<u>1</u>
Total answers		128

7. Does your agency have a type of a mass notification system in order to inform/advise the public of a possible public emergency?

Code Red	23.5%	28
Connect CTY	8.4%	10
Dialogics	7.6%	9
Other	60.5%	72
Skipped question		<u>9</u>
Total answers		128

8. Does your agency assist in training the public on how to react/evacuate to a major disaster, like in question #4?

Yes	46.5%	59
No	30.7%	39
Another agency performs the training	22.8%	29
Skipped question		<u>1</u>
Total answers		128

9. What public and private resources do you have access to use in case of a major incident?

Check all that apply:

Mutual Aid	98.4%	126
Automatic Aid	82.0%	105
MABAS – Mutual Aid Box Alarm System	9.4%	12
Fire Engines	96.9%	124
Ladder Trucks	94.5%	121
Back Hoes	90.6%	115
Bull Dozers	87.5%	112
Police Cars	97.7%	125
Ambulances	96.9%	124
Buses	93.0%	119
Dump Trucks	89.8%	115
Forestry Service	75.8%	97
Schools	88.3%	113
Shelters	85.9%	110
Emergency Operations Center	93.0%	119
Snow Plows	60.2%	77
Other	42.2%	<u>54</u>
Total answers		128

10. What are your current community risk performance measures and standards that are used when developing the All Hazards / Emergency Disaster Plan for your community? (Check all that apply)

NFPA 1710 - Standard for the organization and deployment of fire suppression

operations, emergency medical operations, and special operations to the public by career

fire departments	44.7%	55
RHAVE (Risk, Hazard, and Valuation Evaluation)	30.1%	37
HAZUS-MH (FEMA's Methodology for Estimating Potential Losses from Disasters)	20.3%	25
Stafford Act Program	29.3%	36
NFPA 1600 – Standard on Disaster/Emergency Management and Business Continuity	34.1%	42
NEMA – National emergency Management Association	24.4%	30
EMPG – Emergency Management Performance Grant program	18.7%	23
CAR – Capability Assessment Readiness program	5.7%	7
NEMB-CAP – National Emergency Management Baseline Capacity Assessment Program	2.4%	3
EMAP – Emergency Management Accreditation Program	8.9%	11
IEMC – Integrated Emergency Management Course	17.1%	21
Homeland Security Preparedness Technical Assistance Program	18.7%	23
Homeland Security Exercise and Evaluation Program	30.9%	38
National Exercise Program	11.4%	14
Models, Simulations, and Games Program	22.8%	28
BCP - Business Continuity Planning	14.6%	18
SNAP – Special Needs Awareness Program	8.9%	11

Other	34.1%	42
Skipped question		<u>5</u>
Total answers		128

## Appendix E

### Carrboro Fire-Rescue Department

## SOG Format and Review

### Purpose

The Carrboro Fire-Rescue Department exists to serve the citizens and visitors of the Town of Carrboro. The CFRD SOG Committee has a challenge to keep the department's procedures current, modern, and proactive to meet or exceed national, state, and local standards. This can be accomplished by identifying and recommending improvements to enhance department operations and by developing an open line of communication between the committee and all service providers. This will be done in an effort to keep pace with the changing times and provide quality service.

### Scope

The scope statement establishes the minimum requirements as defined by the Carrboro Fire-Rescue Department for each Standard Operating Guideline (SOG) based upon recognized laws, codes, standards, and policies and procedures.

The Carrboro Fire-Rescue Department Standard Operating Guidelines are based upon the requirements set forth in the Code of the Town of Carrboro, Town Policies, Department of Human Resources Policies and Procedures, other applicable state and federal laws, codes, and standards.

Guidelines are designed to create a safe and effective work environment consistent with organizational values and goals. They are provided to enhance and not restrict or usurp the authority of departmental supervisors.

Supervisors may, at times, modify certain procedures when situations dictate. These modifications should be done in an effective and fair manner that is consistent with the intent of the procedure and values of the organization.

Guidelines, in part or in whole, where applicable, utilizing the word "shall", are designed to be followed without modification. These include procedures mandated by federal, state, and local laws and national codes and standards. These procedures were specifically created to cover high-risk events or activities that do not allow for deviation unless extraordinary circumstances exist that would compromise the safety of the public or our members.



## Content

The CFRD SOG Committee, appointed by the Deputy Chief, shall meet at a minimum on a semi-annual basis to review changes, recommendations, and interim procedures that have been implemented. A full review by the CFRD SOG Committee shall be done every five years.

The review process begins when recommendations are received from shift members or staff. Upon receipt, notice will be sent to the party submitting in the recommendation. Discussion on recommendations will be placed on the agenda of a committee meeting. Completed staff work will be accomplished as time allows and a first draft will be shared with each shift by their committee representative.

Personnel will be given an opportunity to review drafts and forward comments to the CFRD SOG Committee. Due to laws, executive decisions, etc., certain SOGs may be implemented without field review. Each draft will have an assigned date for responses. All comments received after this date will not be considered until the next semi-annual review. The committee will review all comments received in a timely manner for possible implementation into the procedure. If needed, the final draft will be sent to the field for comments and/or sent to the Deputy/Fire Chief and City Attorney for final approval.

## Format

The Standard Operating Guidelines (SOGs) of the Carrboro Fire-Rescue Department shall be grouped into three manuals and further divided into Sections. Each manual shall be coded as follows:

<u>Manual</u>	<u>Code</u>	<u>Section</u>
Organization	1XX	01-07
Routine Operations	2XX	01-05
Emergency Operations	3XX	01-10

Each SOG will be numbered using a sequential numbering series after the Manual Code and Section, i.e., 103-01. This indicates SOG 1 of Manual 1 and Section 3. Pages will be numbered sequentially and in the form of “x of y” indicating page x of y pages.

The Standard Operating Guideline format shall be as follows:

1. Title – should be descriptive of the Standard Operating Guideline
2. Purpose – first paragraph after title, brief description of the intent/need of the Standard Operating Guideline

